

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Re: Application of: COTE, et al.
Serial No.: 10/035,997 Confirmation No.: 3643
Filed: 10/26/2001
For: MATCHED VELOCITY TRANSFER APPARATUS FOR A
SHEET MATERIAL ARTICLE TRIMMER
Art Unit: 3724
Examiner: Phong H. Nguyen
Customer No.: 23280
Atty. Docket: 6001.1178

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

March 13, 2007

APPELLANTS' BRIEF UNDER 37 C.F.R. §41.37

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of their appeal of the Non-Final Rejection dated August 7, 2006 in this application. The statutory fee of \$500.00 was previously paid on May 16, 2006.

1. REAL PARTY IN INTEREST

The real party in interest is Goss International Americas, Inc., a corporation having a place of business in Dover, New Hampshire, and the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned to Goss International Americas, Inc. by a chain of assignments originating from inventors Cote, Curley and Raffaele. The most recent assignment was recorded on October 20, 2004 at reel 015886, frame 0619.

2. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal, interference or judicial proceeding that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

3. STATUS OF CLAIMS

Claims 1 to 11 and 21 to 25 are pending. Claims 12 to 20 have been canceled. Claims 1 to 11 and 21 to 25 have been rejected as per the Non-Final Office Action dated August 7, 2006.

The rejection to claims 1 to 11 and 21 to 25 thus is appealed. A copy of appealed claims 1 to 11 and 21 to 25 is attached hereto as Appendix A.

4. STATUS OF AMENDMENTS AFTER FINAL

No amendments to claims were filed after the non-final rejection. A Notice of Appeal was filed on November 7, 2006 and received by the U.S.P.T.O. on November 13, 2006.

5. SUMMARY OF THE INVENTION

Independent claim 1 recites a transfer apparatus for a sheet material article trimmer (see, e.g., 20 in Fig. 1, in specification see, e.g., paragraph [0031]), the transfer apparatus comprising: a transfer element (see, e.g., 30 in Fig. 1, in specification see, e.g. paragraph [0049]) configured to grip the sheet material article (see, e.g., 54 in Fig. 14, in specification see, e.g. paragraph [0049]) and move the sheet material article in a transfer direction onto a moving side table (see, e.g., 22 in Fig. 14, in specification see, e.g. paragraph [0052]) of the sheet material article trimmer (see, e.g., 20 in Fig. 1, in specification see, e.g., paragraph [0031]); and a driver (see,

e.g., 88 in Fig. 9, in specification see, e.g., paragraph [0050]) configured to move the transfer element at a same speed as the moving side table during a first time period, the speed of the side table (see, e.g., 22 in Fig. 14, in specification see, e.g. paragraph [0052]) and the transfer element (see, e.g., 30 in Fig. 1, in specification see, e.g. paragraph [0049]) varying during the first time period, when the sheet material article is gripped by the transfer element (see, e.g., 30 in Fig. 1, in specification see, e.g. paragraph [0049]) and the side table(see, e.g., 22 in Fig. 14, in specification see, e.g. paragraph [0052]) is moving in the transfer direction.

Further, independent claim 25 recites a transfer apparatus for a sheet material article trimmer (see, e.g., 20 in Fig. 1, in specification see, e.g., paragraph [0031]), the transfer apparatus comprising: a transfer element (see, e.g., 30 in Fig. 1, in specification see, e.g. paragraph [0049]) configured to grip the sheet material article and move the sheet material article in a transfer direction onto a side table (see, e.g., 22 in Fig. 14, in specification see, e.g. paragraph [0052]) of the sheet material article trimmer (see, e.g., 20 in Fig. 1, in specification see, e.g., paragraph [0031]); and a driver (see, e.g., 88 in Fig. 9, in specification see, e.g., paragraph [0050]) configured to move the transfer element (in specification see, e.g., paragraph [0008]) at a same speed as the side table (see, e.g., 22 in Fig. 14, in specification see, e.g. paragraph [0052]) during a first time period when the sheet material article is gripped by the transfer element (in specification see, e.g., paragraph [0008]) and the side table is moving in the transfer direction; the driver including an epicycle gear unit (see, e.g., 88 in Fig. 9, in specification see, e.g., paragraph [0050]), the epicycle gear unit including a constant speed input member (in specification see, e.g., paragraph [0051]) driven by a main trimmer drive (in specification see, e.g., paragraph [0051]) of the sheet material article trimmer and a variable speed input member (in specification see, e.g., paragraph [0051]) configured for varying an output of the epicycle gear unit (see, e.g., 88 in Fig. 9, in specification see, e.g., paragraph [0050]) so as to vary a speed of the transfer element (in specification see, e.g., paragraph [0008]).

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1 to 5, 7 to 10 and 21 to 25 should be rejected under 35 U.S.C. §102(b) as being anticipated by Bryson et al., U.S. Patent No. 3,733,947. Whether claims 1 to 11 and 21

to 25 should be rejected under 35 U.S.C. §103(a) as being unpatentable over Bryson et al. in view of McCain et al, U.S. Patent No. 3,732,766 and Sarring, U.S. Patent No. 3,722,336.

7. ARGUMENTS

35 U.S.C. §102(b) Rejections

Claims 1 to 5, 7 to 10 and 21 to 25

Claims 1 to 5, 7 to 10 and 21 to 25 were rejected under 35 U.S.C. §102(b) as being anticipated by Bryson et al., U.S. Patent No. 3,733,947.

Bryson et al. discloses a trimmer. The trimmer has belts 162, 203 and a side knife table 91. The belts 162, 203 identified in the Office Action as the transfer element move at a constant speed. At a single point of time, the varying speed of the side table matches the constant speed of the belts 162, 203. The fact that the velocities match at a single point in time causes the problems noted in the present specification at paragraphs [0003] to [0006], for example.

Claim 1 recites a transfer apparatus for a sheet material article trimmer, the transfer apparatus comprising:

a transfer element configured to grip the sheet material article and move the sheet material article in a transfer direction onto a moving side table of the sheet material article trimmer; and

a driver configured to move the transfer element at a same speed as the moving side table during a first time period, the speed of the side table and the transfer element varying during the first time period, when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction.

In Bryson, the driver for the belts 162, 203 does not vary the speed of the transfer element during a first time period where the transfer element moves at a same speed as the moving side table.

The speed of the side table in Bryson varies, as the side table reciprocates. However, there is no teaching or disclosure pointed to by the Office Action which indicates that the speed

of the “transfer element varies during the first time period” when the driver moves the transfer element and the side table at a same speed.

The Office Action states at page 3 that the driver for the belts 162, 203 includes epicyclical gear unit 62 with a constant input speed member 61 and a variable speed member 64.

However, there is absolutely no teaching or disclosure that this epicyclical gear unit 62 drives the belts 162, 203 which are driven by drive roller 165. Moreover, gear unit 62 is merely a differential device used to alter phase but does not impart a reciprocating motion.

There also is absolutely no teaching or disclosure that the speed of the belts 162, 203 “varies during the first time period” as claimed. Bryson very clearly states that “it is desired to maintain the book velocity which is present during the front edge trimming and to transport the book over a considerable distance in delivering the book to the side edge table.” This transport is accomplished by belts 162, 203. (See Bryson at col. 11, lines 45 to 55). Maintaining a book velocity indicates a constant speed.

The Office Action states that the speed of the transfer elements varies as “implied in col. 17, lines 5 to 10.” This section discloses no more than that the speed of the transfer element and the speed of the moving side table match at a single point in time. There is no disclosure that the speed of the transfer element is anything other than constant, and not varying, at this point in time. See Bryson at column 17, lines 7 to 11: “the speed of the books and speed of the knife table 91 are matched (Fig. 25). At this *point* pressure plate 189 is swung upwardly to free the books from the drive of the pinch belts.” Col. 17, lines 7 to 11 of Bryson. Bryson clearly discloses that this match of speed is a single point of time.

Withdrawal of the rejections under 35 U.S.C. §102(b) to claims 1 to 5, 7 to 10 and 21 to 25 is respectfully requested herewith.

Claim 22 Argued Separately

With further respect to claim 22, Bryson also does not disclose “wherein the first time period corresponds to 130 degrees of the reciprocating motion of the side table” as claimed. Bryson discloses that the “side knife table 91 has a reciprocating motion along the line of travel of the books through the trimmer and as in the case of the front knife table, there is a minor degree of arcuate movement to the side knife table 91.” See Bryson col. 8, lines 19 to 23. The

reciprocating motion and minor degree of arcuate motion in Bryson do not teach “the first time period corresponds to 130 degrees of the reciprocating motion of the side table” as claimed.

Withdrawal of the rejection for this reason as well is respectfully requested.

Claim 24 Argued Separately

With further respect to claim 24, Bryson does not disclose “wherein the driver both increases and decreases the speed of the transfer element during the first time period.” The Office Action states that the speed increases and decreases when the driver is turned on and off, not during the first time period.

Claim 25

Independent claim 25 was rejected under 35 U.S.C. §102(b) as being anticipated by Bryson.

Claim 25 recites a transfer apparatus for a sheet material article trimmer, the transfer apparatus comprising:

a transfer element configured to grip the sheet material article and move the sheet material article in a transfer direction onto a side table of the sheet material article trimmer; and

a driver configured to move the transfer element at a same speed as the side table during a first time period when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction;

the driver including an epicycle gear unit, the epicycle gear unit including a constant speed input member driven by a main trimmer drive of the sheet material article trimmer and a variable speed input member configured for varying an output of the epicycle gear unit so as to vary a speed of the transfer element.

The Office Action states at page 3 that the driver for the belts 162, 203 includes epicyclical gear unit 62 with a constant input speed member 61 and a variable speed member 64.

However, there is absolutely no teaching or disclosure that this epicyclical gear unit 62 drives the belts 162, 203 which are driven by drive roller 165. Nor has the Office Action indicated any.

Withdrawal of the rejection under 35 U.S.C. §102(b) to claim 25 is respectfully requested.

Similar to claim 1, claim 25 recites “a transfer element configured to grip the sheet material article and move the sheet material article in a transfer direction onto a side table of the sheet material article trimmer” and “a driver configured to move the transfer element at a same speed as the side table during a first time period when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction.”

As such, Bryson also fails to disclose these limitations for the reasons set forth above regarding claim 1.

35 U.S.C. §103(a) Rejections

Claims 1 to 11 and 21 to 25

Claims 1 to 11 and 21 to 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bryson et al. in view of McCain et al, U.S. Patent No. 3,732,766 and Sarring, U.S. Patent No. 3,722,336.

Bryson is discussed above.

McCain discloses a machine concerned with trimming operations on books. Each book is in-fed or advanced toward the front knife trimmer by the in-feed lugs carried by the in-feed chains. The chains are constantly driven and the lugs thereon are effective to advance the books toward the front trim knife. See McCain col. 4, lines 50 to 62.

Sarring shows belts 1294, a housing 1224 and a side knife bar 1490 moving downwardly.

Claim 1 recites a transfer apparatus for a sheet material article trimmer, the transfer apparatus comprising:

a transfer element configured to grip the sheet material article and move the sheet material article in a transfer direction onto a moving side table of the sheet material article trimmer; and

a driver configured to move the transfer element at a same speed as the moving side table during a first time period, the speed of the side table and the transfer element varying during the first time period, when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction.

Claim 25 recites similar limitations, “a transfer element configured to grip the sheet material article and move the sheet material article in a transfer direction onto a side table of the sheet material article trimmer” and “a driver configured to move the transfer element at a same speed as the side table during a first time period when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction.”

In Bryson, the driver for the belts 162, 203 does not vary the speed of the transfer element during a first time period where the transfer element moves at a same speed as the moving side table. McCain does not disclose a moving side table nor does McCain disclose “a driver configured to move the transfer element at a same speed as the moving side table during a first time period.” In Sarring, belts 1294 and 1010 do not vary speed during the first time period as claimed; belt 1294 is stationary and does not move during the cut. Sarring does not disclose a moving side table nor “a driver configured to move the transfer element at a same speed as the side table during a first time period when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction.”

Neither Bryson, nor McCain nor Sarring show or teach “a driver configured to move the transfer element at a same speed as the moving side table during a first time period” and it is respectfully submitted that it would not have been obvious to one skilled in the art.

Furthermore, the Office Action asserts that McCain recognizes the need of varying the speed of the transfer element. There is no teaching or disclosure of this nor has the Office Action indicated any. None of the cited references show or teach “moving the transfer element at a same speed as the moving side table, the speed of the side table and the transfer element varying during the first time period.” Applicants respectfully submit there is no reason or motivation to combine the driver in Bryson, with McCain and Sarring to provide “a driver configured to move the transfer element at a same speed as the side table during a first time period when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction” as claimed.

Withdrawal of the rejections under 35 U.S.C. §103(a) to claims 1 to 11 and 21 to 25 is respectfully requested.

With further respect to claim 25, claim 25 recites “the driver including an epicycle gear unit, the epicycle gear unit including a constant speed input member driven by a main trimmer

drive of the sheet material article trimmer and a variable speed input member configured for varying an output of the epicycle gear unit so as to vary a speed of the transfer element.”

As stated above with respect to the rejection under §102(b), the Office Action states at page 3 that the driver for the belts 162, 203 includes epicyclical gear unit 62 with a constant input speed member 61 and a variable speed member 64. However, there is absolutely no teaching or disclosure that this epicyclical gear unit 62 drives the belts 162, 203 which are driven by drive roller 165. Nor has the Office Action indicated any.

Furthermore, neither McCain nor Sarring show or teach a driver including an epicyclical gear unit.

Applicants respectfully submit one of skill in the art would not have found it obvious to combine Bryson, McCain and Sarring. There is no reason or motivation to combine the driver in Bryson, with McCain and Sarring to provide a “driver including an epicycle gear unit.”

Withdrawal of the rejection under 35 U.S.C. §103(a) to claim 25 for these reasons as well is respectfully requested.

Claim 9 Argued Separately

With further respect to claim 9, claim 9 recites “wherein the transfer element includes a shuttle mechanism.” Neither Bryson, nor McCain nor Sarring disclose a shuttle mechanism. It is respectfully submitted that it would not have been obvious to one skilled in the art to provide a transfer element that includes a shuttle mechanism.

Furthermore, neither Bryson, McCain nor Sarring provide any teaching, suggestion or motivation to provide a transfer element that includes a shuttle mechanism.

Withdrawal of the rejection to claim 9 for this reason as well is respectfully requested.

Claim 10 Argued Separately

With further respect to claim 10, claim 10 recites “an epicycle gear unit, the epicycle gear unit including a constant speed input member driven by a main trimmer drive of the sheet material article trimmer and a variable speed input member configured for varying an output of the epicycle gear unit so as to vary a speed of the transfer element.” Bryson discloses an epicyclical gear unit 62 for adjusting phase relationship, not for varying “a speed of the transfer

element” as claimed. Sarring does not show or teach an epicycle gear unit at all. It is respectfully submitted that it would not have been obvious to one skilled in the art to provide an epicycle gear unit so as to vary a speed of the transfer element.

Withdrawal of the rejection to claim 10 for this reason as well is respectfully requested.

Claim 11 Argued Separately

With further respect to claim 11, claim 11 recites “the driver includes a servo motor configured to vary a speed of the transfer element.” Neither Bryson, nor McCain nor Sarring show or teach a driver including a servo motor. It is respectfully submitted that it would not have been obvious to one skilled in the art to provide a driver including “a servo motor configured to vary a speed of the transfer element” as claimed.

Furthermore, neither Bryson, McCain nor Sarring provide any teaching, suggestion or motivation to combine a driver with a servo motor “to vary a speed of the transfer element.”

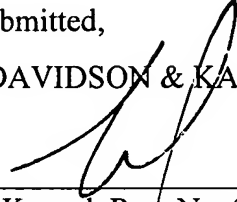
Withdrawal of the rejection to claim 11 for these reasons as well is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance. Favorable consideration of this appeal brief is respectfully requested.

Respectfully submitted,

DAVIDSON, DAVIDSON & KAPPEL, LLC

By: 
Cary S. Kappel, Reg. No. 36,561

DAVIDSON, DAVIDSON & KAPPEL, LLC
485 Seventh Avenue, 14th Floor
New York, NY 10018
Tel: (212) 736-1940
Fax: (212) 736-2427

APPENDIX A:

PENDING CLAIMS 1 to 11 and 21 to 25 of U.S. APPLICATION SERIAL NO. 10/035,997

Claim 1 (previously presented): A transfer apparatus for a sheet material article trimmer, the transfer apparatus comprising:

a transfer element configured to grip the sheet material article and move the sheet material article in a transfer direction onto a moving side table of the sheet material article trimmer; and

a driver configured to move the transfer element at a same speed as the moving side table during a first time period, the speed of the side table and the transfer element varying during the first time period, when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction.

Claim 2 (original): The transfer apparatus as recited in claim 1 wherein the driver is further configured to move the sheet material article to a predetermined position relative to the side table before moving the transfer element at the same speed as the side table.

Claim 3 (original): The transfer apparatus as recited in claim 1 wherein side clamps of the side table grip the sheet material article during at least a portion of the first time period.

Claim 4 (original): The transfer apparatus as recited in claim 1 wherein a side trimming operation is performed during at least a portion of the first time period.

Claim 5 (original): The transfer apparatus as recited in claim 1 wherein the driver is further configured to move the transfer element at a same speed as a front table of the sheet material article trimmer during at least a portion of a second time period when the transfer element grips the sheet material article and a front clamp of the sheet material article trimmer grips the sheet material article.

Claim 6 (original): The transfer apparatus as recited in claim 1 wherein the driver is further configured to move the transfer element at a same speed as a receiving conveyor of the sheet material article trimmer during a third time period so as to move the sheet material article from the side table onto the receiving conveyor.

Claim 7 (original): The transfer apparatus as recited in claim 1 wherein the transfer element includes at least one continuous belt.

Claim 8 (previously presented): The transfer apparatus as recited in claim 7 wherein the at least one continuous belt includes an upper belt and a lower belt for engaging the sheet material article therebetween.

Claim 9 (original): The transfer apparatus as recited in claim 1 wherein the transfer element includes a shuttle mechanism.

Claim 10 (original): The transfer apparatus as recited in claim 1 wherein the driver includes an epicycle gear unit, the epicycle gear unit including a constant speed input member driven by a

main trimmer drive of the sheet material article trimmer and a variable speed input member configured for varying an output of the epicycle gear unit so as to vary a speed of the transfer element.

Claim 11 (original): The transfer apparatus as recited in claim 1 wherein the driver includes a servo motor configured to vary a speed of the transfer element.

Claims 12 to 20 (canceled).

Claim 21 (previously presented): The transfer apparatus as recited in claim 1 wherein the driver moves the transfer element during the first time period to match a reciprocating motion of the side table.

Claim 22 (previously presented): The transfer apparatus as recited in claim 21 wherein the first time period corresponds to 130 degrees of the reciprocating motion of the side table.

Claim 23 (previously presented): The transfer apparatus as recited in claim 1 wherein the driver moves the transfer element during the first time period to exhibit a curved velocity profile.

Claim 24 (previously presented): The transfer apparatus as recited in claim 1 wherein the driver both increases and decreases the speed of the transfer element during the first time period.

Claim 25 (previously presented): A transfer apparatus for a sheet material article trimmer, the transfer apparatus comprising:

a transfer element configured to grip the sheet material article and move the sheet material article in a transfer direction onto a side table of the sheet material article trimmer; and

a driver configured to move the transfer element at a same speed as the side table during a first time period when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction;

the driver including an epicycle gear unit, the epicycle gear unit including a constant speed input member driven by a main trimmer drive of the sheet material article trimmer and a variable speed input member configured for varying an output of the epicycle gear unit so as to vary a speed of the transfer element.

APPENDIX B

Evidence Appendix under 37 C.F.R. §41.37(c)(ix):

No evidence pursuant to 37 C.F.R. §§1.130, 1.131 or 1.132 and relied upon in the appeal has been submitted by appellants or entered by the examiner.

APPENDIX C

Related proceedings appendix under 37 C.F.R. §41.37(c)(x):

As stated in “2. RELATED APPEALS AND INTERFERENCES” of this appeal brief, appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board’s decision in this appeal.